

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the present application.

Listing of Claims:

1-39. (Canceled)

40. (Currently Amended) A plug for use in plugging an aperture through a patient's body structure comprising:

a medial tubular portion having perforations that enable the medial tubular portion to change in circumference;

a plurality of resilient fingers that are integral with the medial tubular portion and which extending substantially radially out from an axial end of the medial tubular portion; and

a plugging structure substantially occluding the medial tubular portion.

41. (Original) The plug defined in claim 40 wherein the medial tubular portion and the fingers comprise nitinol.

42. (Original) A plug installing assembly comprising:

a plug as defined in claim 40; and  
a delivery structure disposed substantially coaxially around the plug, whereby the fingers are elastically deflected inwardly toward parallelism with a central longitudinal axis of the medial tubular portion.

43. (Original) The plug defined in claim 40 wherein the fingers include fingers that extend substantially radially out from each axial end of the medial tubular portion.

44. (Original) The plug defined in claim 40 wherein end portions of the fingers remote from the medial tubular portion are pointed.

45. (Original) The plug defined in claim 40 wherein end portions of the fingers remote from the medial tubular portion are barbed.

46. (Original) The plug defined in claim 40 wherein the fingers are concave curved as viewed from a plane extending radially out from the medial tubular portion.

47. (Original) The plug defined in claim 40 wherein the medial tubular portion has a substantially round cross section.

48. (Original) The plug defined in claim 40 wherein the medial tubular portion has a substantially elliptical cross section.

49. (Original) The plug defined in claim 40 wherein substantially all of the fingers extending from an axial end of the medial tubular portion are of substantially similar length.

50. (Original) The plug defined in claim 40 wherein different ones of the fingers extending from an axial end of the medial tubular portion are of different lengths.

51. (Original) The plug defined in claim 43 wherein free end portions of the fingers that extend from one axial end of the medial tubular portion overlap free end portions of the fingers that extend from the other axial end of the medial tubular portion.

52. (Original) The plug defined in claim 40 wherein each finger has different flexural stiffness at different points along its length.

53. (Original) The plug defined in claim 40 wherein each finger has different thickness at different points along its length.

54. (Original) The plug defined in claim 40 wherein each finger has different width at different points along its length.

55. (Original) The plug defined in claim 40 further comprising structure on free end portions of the fingers and configured to facilitate releasable retention of the fingers in a condition in which they extend substantially parallel to a longitudinal axis of the medial tubular portion.

56. (Original) The plug defined in claim 55 wherein the structure on free end portions of the fingers comprises an aperture through each of the fingers.

57. (Original) The plug defined in claim 40 further comprising:

an elastic web between adjacent ones of the fingers.

58. (Original) The plug defined in claim 57 wherein the web comprises silicone.

59-101. (Canceled)

102. (New) The plug defined in claim 40, wherein each of the resilient fingers is free at its end portion.

103. (New) The plug defined in claim 40, wherein both the medial tubular portion and the resilient fingers are integrally formed from a single hollow tube of material.

104. (New) The plug defined in claim 40, wherein the medial tubular portion is configured to resiliently change in circumference.

105. (New) A plug for use in plugging an aperture through a patient's body structure comprising:

    a medial tubular portion;  
    a plurality of resilient fingers that are integral with the medial tubular portion and which extend substantially radially out from an axial end of the medial tubular portion, wherein each finger has different flexural stiffness at different points along its length; and  
    a plugging structure substantially occluding the medial tubular portion.

106. (New) The plug defined in claim 105, wherein said different flexural stiffness is accomplished in each finger by having different thickness at different points along its length.

107. (New) The plug defined in claim 105, wherein said different flexural stiffness is accomplished in each

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finger by having different width at different points along its length.